

SUBSTITUTE SPECIFICATION (Clean Copy)A METHOD AND SYSTEM FOR ACCESSING AN INTERACTIVE
TELEVISION SESSION BY A MINI-MESSAGE

Related Application

[0001] This is a §371 of International Application No. PCT/FR2004/050675, with an international filing date of December 10, 2004 (WO 2005/062613 A1, published July 7, 2005), which is based on French Patent Application No. 03/51107, filed December 18, 2003.

Technical Field

[0002] This disclosure relates to the field of interactive television.

Background

[0003] There are known solutions for accessing interactive pay television services in the previous state of the art. A classic solution consists of making the payment using a bank card. Other solutions are also known, such as payment by means of a surcharged modem connection.

Summary

[0004] This disclosure is directed to a method of accessing an interactive television service with a code and a mini-message comprising:

randomly generating a code C1 by an interactive television application implemented on an interactive television set;

sending a mini-message containing the code C1 to a processing server with a mobile telecommunications device;

calculating a code $C2 = F(C1)$ with the processing server;
resending of the code C2 with the processing server and receiving the code C2 on the mobile telecommunications device;
entering the code C2 by the user in the interactive television application;
calculating the interactive application $C1' = F^{-1}(C2)$;
checking that $C1' = C1$; and
enabling the user to access the service,
wherein F is a predefined function, and F^{-1} is the inverse function of F.

[0005] The mini-message may be in SMS format, MMS format or in the form of an e-mail.

[0010] The mini-message may be transmitted across a mobile telecommunications network or across the internet and/or a local wireless network.

[0011] Preferably, the service requires payment and the mini-message is surcharged.

[0012] A system for implementing the method is also disclosed and comprises at least a mobile telecommunications device, an interactive television set, a mobile telecommunications network or a local wireless network, a digital television broadcasting network and a processing server.

Brief Description of the Drawing

[0013] The disclosure will be understood better from reading the description, provided below for purely explanatory purposes, of selected aspects in reference to the appended figure, in which:

Fig. 1 shows one selected embodiment of the method according to the invention.

Detailed Description

[0014] In the selected example, a user has a television set connected to an interactive television decoder and a mobile telephone terminal that has capacity for sending and receiving SMS, MMS or e-mail messages. This terminal can be compatible with GSM, CDMA, GPRS, UMTS or any other digital telecommunications standard that supports sending and receiving mini-messages. It is also possible to use a PDA terminal (personal digital assistant) connected to a local wireless network (Wi-Fi or the like). It is understood that this example is non-exhaustive and that it is up to the person skilled in the art to implement variations that adapt to each specific case.

[0015] The user may watch free-access interactive television programmes. At a given instant T, he/she decides to access an interactive pay television service. The interactive television application generates a code C at random and asks the user to enter this code C on his/her mobile terminal.

[0016] In the example, the code is taken from the natural numbers under $2^8 = 256$ and the function used is $Y = F(X) = 1/x^2$. This means that $X = F^{-1}(Y) = 1/\sqrt{Y}$.

[0017] The user then enters the code $C = N_1$ on his/her terminal and sends it in the form of an SMS message to a predefined number. In the example, the SMS is surcharged, in other words, the mobile telecommunications operator bills the message at a higher price than normal SMS messages and a part of this extra charge is paid back to the interactive pay television service provider.

[0018] Next, the SMS is received by a processing server, which calculates $R = F(N_1) = 1/(N_1)^2$. The server sends the result R back to the user's terminal over a mobile telecommunications network.

[0019] The next step comprises the user entering R in a window of the interactive television application using his/her remote control. The interactive application calculates $F^{-1}(R) = 1/\sqrt{R}$ and checks that this value is the same, by approximation of calculations on real numbers by nearby computers, as N_1 . If the verification is successful, the interactive television application authorizes the user to access the paying service.

[0020] The above method and apparatus/system is described merely as a selected example. It is understood that those skilled in the art will be able to implement different variants without therefore departing from the spirit and scope of the appended claims.